

## **Propellant Systems Branch (RTP)**

Performs propellant and fuel system research and technology development for current and future aerospace transportation vehicles. Work encompasses cryogenic and ambient temperature liquids for both earth-based and space-based (low-gravity) applications. Specific areas of analytical and experimental cryogenic expertise include long-term storage of cryogenic propellants in space and for planetary applications. This includes active and passive pressure and thermal control, low gravity fluid acquisition and transfer, instrumentation technology, densification □ production, handling, and stratification technology, and propellant handling for the current expendable launch vehicle cryogenic second stages □ chill-down and pressurization technology. Conducts ambient and cryogenic fuel cooling investigations and extensive research and development of technology for reforming hydrocarbon fuels. Innovative approaches to achieving high energy-density propellant options are investigated.

